

Amendments to the Specification

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5

--ABSTRACT

A method and apparatus for testing analogue or RF circuitry, wherein the power supply VDD is ramped up (step 100) and quiescent current measurements are taken at 10 selected values of VDD (step 102) to generate a current signature (step 104). When the power supply is ramped up, all transistors in the circuit pass through several regions of operation, e.g. subthreshold (region A), linear (region B), and saturation (region C). The advantage of transition from region to region is that defects can be detected with distinct accuracy in each of the operating regions. Once the current signature has been generated 15 it can be compared with the current signature of a fault-free device (step 106), to determine (step 108) if the device is operating correctly, and if not, it is discarded.--